

REMARKS

The following remarks are submitted as a full and complete response to the outstanding Action. By this Amendment, claims 1-4, 7-9, 11-14, 16 and 17 have been amended to more clearly and distinctly claim the application. No new matter has been introduced. Accordingly, claims 1-36 are pending and submitted for consideration.

Entry of this Amendment is proper under 37 C.F.R. § 1.116 since this Amendment: (a) places the application in condition for allowance for reasons discussed herein; (b) does not raise any new issue regarding further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally-rejected claims and (d) places the application in better form for appeal, should an appeal be necessary. The Amendment is necessary because it is made in reply to arguments raised in the rejection. Entry of the Amendment is thus respectfully requested.

Allowable Subject Matter

Applicant acknowledges and thanks the Examiner for indication that claims 20-36 have been allowed and that claims 3-5 and 7-17 would be allowable if rewritten in independent form. However, the Applicant submits that all the pending claims recite allowable subject matter and therefore, placing claims 3-5 and 7-17 in independent form is unnecessary.

Section 102 Rejection

Claims 1, 2, 6 and 18 have been rejected under 35 U.S.C. §102(e) as being anticipated by Song et al. (U.S. Patent No. 6,446,152, hereinafter "Song**").**

However, the Applicant respectfully submits that claims 1, 2, 6 and 18 recite subject matter neither taught nor disclosed in **Song**.

Applicant's amended claim 1 recites an input/output interface wherein logical values are expressed respectively by orders that transition edges appear in a plurality of transmission signals transmitting respectively on a plurality of signal lines.

In making this rejection, the Office Action took the position that **Song** discloses all of the elements of the claimed invention. However, it is respectfully submitted that the prior art fails to disclose or suggest the structure of the claimed invention, and therefore, fails to provide the advantages of the present invention.

For example, as a result of the claimed configuration, a large amount of data can be transmitted through the small number of the signal lines according to the combination of the timings that the transition edges appear in the transmission signals. Since a large amount of data can be transmitted by one transmission, it is possible to substantially increase the data transfer rate.

Song discloses a System and Method for Multicoupling Digital Signals and a Backplane Data Bus With Multicoupling of Digital Signals. As shown in Fig. 1, first circuit card 10 includes a plurality of M transmitters 12, 14, 16 and 18, each connected to a respective primary track 32, 34, 36, 38. The data rate of the transmitters and the primary tracks is R/M. Transmitter 12 is directly connected to the primary track 32. Transmitters

14, 16 and 18 are connected to the primary track through respective delay elements 15, 17 and 19.

However, contrary to the present invention, in **Song**, the transmitters shown in Figs. 1 and 2 cannot transmit a plurality of logical values. Specifically, as shown in Fig. 2 of **Song**, the signals T2, T3 and T4 are always behind the original signal T1 by the delay time introduced by the delay elements 15, 17 and 19, respectively. Accordingly, the order that the timing edges appear in the four signals in **Song** is always constant. Thus, only one logical value can be expressed. But in the present invention, logical values are expressed respectively by orders that transition edges appear in a plurality of transmission signals transmitting respectively on a plurality of signal lines, as recited in amended claim 1.

Therefore, it is respectfully submitted that the Applicant's invention, as set forth in claim 1, is not anticipated within the meaning of 35 U.S.C. § 102.

As claims 2, 6 and 18 depend directly or indirectly from claim 1, Applicant respectfully submits that each of these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above.

Claim 19 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Song. In making this rejection, the Office Action took the position that **Song** discloses all the elements of the claimed invention, except for showing the transmitter circuit and the receiver circuit both formed on the same semiconductor.

However, as discussed above with respect to independent claim 1, **Song** fails to disclose or suggest the claimed invention. Therefore, as claim 11 depends from claim 1,

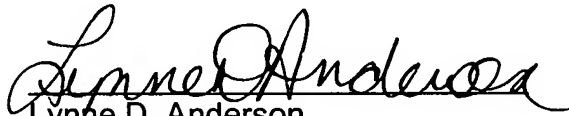
Applicant respectfully submits that this claim incorporates the patentable aspects of claim 1, and is therefore allowable, for at least the same reasons. Thus, Applicant requests that the rejection be withdrawn.

In view of the above remarks, the Applicant respectfully submits that each of claims 1, 2, 6, 18 and 19 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicant submits that this subject matter is more than sufficient to render the claimed invention unobvious to a person of ordinary skill in the art. Applicant therefore requests that each of claims 1, 2, 6, 18 and 19 be found allowable (claims 20-36 already being allowed and claims 3-5 and 7-17 being indicated as reciting allowable subject matter), and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 01-2300, **referencing docket no. 108397-00052.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lynne D. Anderson", written over a horizontal line.

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